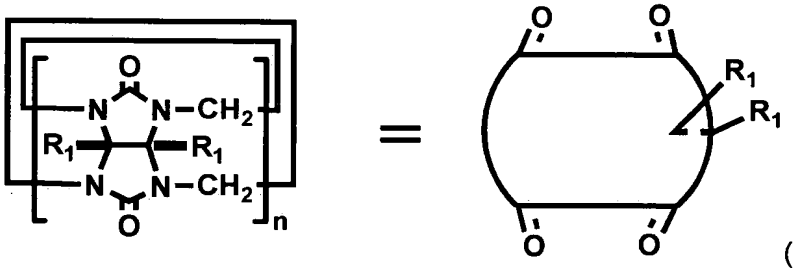
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

What is claimed is:

1. (Original) A polymer in which a particle-type polymer with a reactive end-substituted group is linked to a cucurbituril derivative of Formula 1 below by a covalent bond:



(1)

wherein n is an integer of 4 to 20, and each R_1 is independently a substituted or unsubstituted alkenyloxy group of C_2-C_{20} with an unsaturated bond end, a carboxyalkylsulfanyloxy group with a substituted or unsubstituted alkyl moiety of C_2-C_{20}, a carboxyalkyloxy group with a substituted or unsubstituted alkyl moiety of C_2-C_8, an aminoalkyloxy group with a substituted or unsubstituted alkyl moiety of C_1-C_8, a hydroxyalkyloxy group with a substituted or unsubstituted alkyl moiety of C_1-C_8, or an epoxyalkyloxy group with a substituted or unsubstituted alkyl moiety of C_2-C_8.

2. (Original) The polymer of claim 1, wherein the reactive end-substituted group is a halogen atom, a substituted or unsubstituted amino group, an epoxy group, a carboxyl group, a thiol group, an isocyanate group, or a thioisocyanate group.

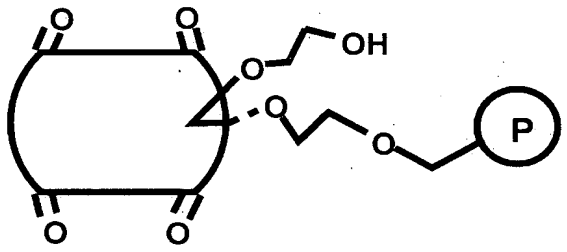
3. (Original) The polymer of claim 1, wherein the particle-type polymer with the

reactive end-substituted group is a Merrifield polymer or an XAD polymer.

4. (Original) The polymer of claim 1, wherein the particle-type polymer has an average particle size of 5-300 ㎛.

5. (Original) The polymer of claim 1, wherein the covalent bond is an ether bond, a sulfanyl bond, an amino bond, an ester bond, an amide bond, a thioamide bond, or a urea bond.

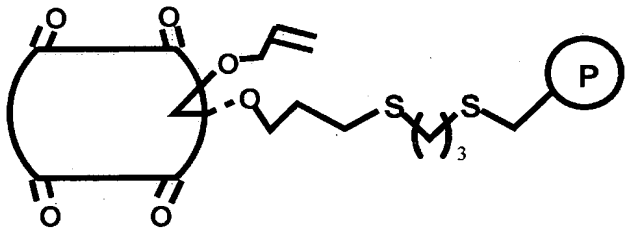
6. (Original) The polymer of claim 1, which is a compound of Formula 2 below:



(2)

wherein P is a polymer residue.

7. (Original) The polymer of claim 1, which is a compound of Formula 3 below:

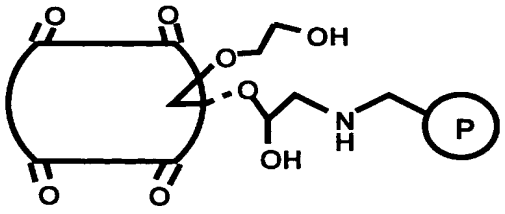


(3)

wherein P is a polymer residue.

8. (Original) The polymer of claim 1, which is a compound of Formula 4

below:

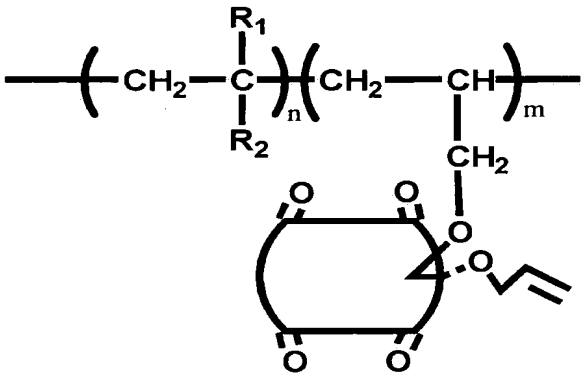


(4)

wherein P is a polymer residue.

9. (Original) A polymer in which the cucurbituril derivative of Formula 1 of claim 1 is copolymerized with a monomer with a substituted or unsubstituted alkenyl group of C_3-C_{20}.

10. (Original) The polymer of claim 9, which is a compound of Formula 5 below:



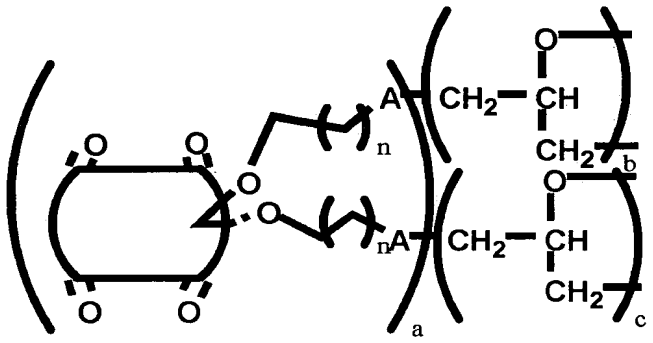
(5)

wherein n is an integer of 100-10,000, m is an integer of 10-5,000, R_1 and R_2 are each independently a substituted or unsubstituted aryl group of C_6-C_{30}, a carboxyl group, a substituted or unsubstituted heterocycle group of C_4-C_{30}, a substituted or unsubstituted alkyl group of C_1-C_{20}, a halogen atom, a cyano group, an amino group, a substituted or unsubstituted aminoalkyl group of C_1-

C_{10}, a hydroxyl group, a substituted or unsubstituted hydroxyalkyl group of C_1-C_{10}, a substituted or unsubstituted alkenyl group of C_3-C_{10}, or hydrogen.

11. (Original) The polymer of claim 10, wherein the cucurbituril derivative of Formula 1 of claim 1 where R_1 is an allyloxy group is copolymerized with the monomer with a substituted or unsubstituted alkenyl group of C_3-C_{20}.

12. (Original) The polymer of claim 9, which is a compound of Formula 6 below:

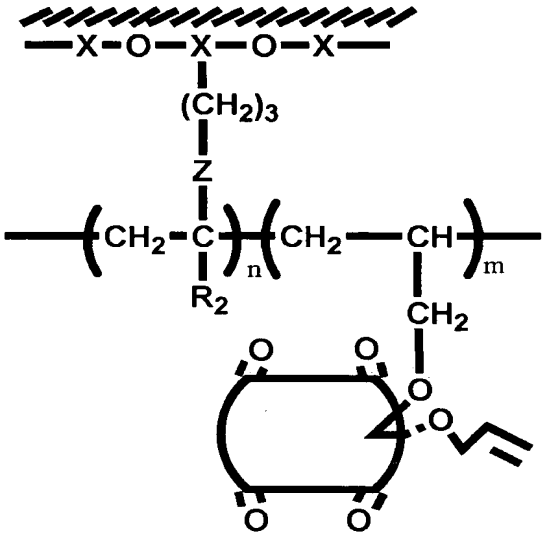


(6)

wherein A is NH or O, n is an integer of 1-8, and a is an integer of 10-2,000, b and c are each independently an integer of 100-10,000.

13. (Original) The polymer of claim 12, wherein the cucurbituril derivative of Formula 1 of claim 1 where R_1 is an aminoalkyloxy group or a hydroxyalkyloxy group with an alkyl moiety of C_2-C_9 is copolymerized with epichlorohydrin or epibromohydrin in the presence of a base.

14. (Original) A polymer of Formula 7 below:



(7)

wherein n is an integer of 100-10,000, m is an integer of 10-5,000, Z is an amide bond, an ester bond, a urea bond, a thiourea bond, an amine bond, or an ether bond, R_2 is a substituted or unsubstituted alkyl group of C_1-C_{10}, a substituted or unsubstituted aryl group of C_6-C_{30}, a carboxyl group, a substituted or unsubstituted heterocycle group of C_4-C_{30}, or hydrogen, and X is Si, Al, or Ti.

15. (Currently Amended) A filter material ~~in which~~ comprising the polymer of Formula 7 of claim 14 ~~is~~ covalently bonded to a glass wool, a filter, or a cellulose.

16. (Original) A monolithic column obtained by a process comprising:

dissolving a monomer with a substituted or unsubstituted alkenyl group of C_3-C_{20} and allyloxycucurbituril of Formula 1 of claim 1 where R_1 is an allyloxy group in a solvent to obtain a solution;

sequentially adding a porogen and a 0.2-5% by weight of a radical initiator, based on the total weight of reactants, to the solution;

inputting the reaction solution in a column tube with a sealed end and sealing the other end of the column tube;

stirring the reaction solution at 60-80°C for 15-30 hours; and

washing the column tube.

17. (Original) The monolithic column of claim 16, wherein the monomer is one or more selected from the group consisting of acrylamide, acrylic acid, methacrylic acid, methacrylamide, vinylpyrrolidinone, styrene, methylenebisacrylamide, and methacrylbutylester.

18. (Original) The monolithic column of claim 16, wherein the porogen is a primary alcohol of C_2-C_{18}, methylenechloride, or chloroform.

19. (Original) The monolithic column of claim 16, wherein the radical initiator is AIBN (2,2'-azobisisobutyronitrile), $K_2S_2O_8$, ammonium persulfate, or benzoylperoxide.

20. (Original) A monolithic column obtained by a process comprising:

allowing a solution of silane with an alkenyl group of C_3-C_{20} in acetone to flow down through a capillary tube for 10-30 minutes;

sealing both ends of the capillary tube and incubating the capillary tube for 10-30 hours;

washing the inside of the capillary tube with acetone and water;

dissolving a radical initiator, a monomer with a substituted or unsubstituted alkenyl group of C_3-C_{20}, and allyloxycucurbituril of Formula 1 of claim 1 where R_1 is an allyloxy group, in water or a mixed solvent of water and acetone, and adding the reaction solution to the capillary tube;

sealing both the ends of the capillary tube and incubating the capillary tube at room temperature for 10-30 hours for copolymerization; and

washing the capillary tube.

21. (Original) The monolithic column of claim 20, wherein the monomer is one or more selected from the group consisting of acrylamide, acrylic acid, methacrylic acid, methacrylamide, vinylpyrrolidinone, styrene, methylenebisacrylamide, and methacrylbutylester.

22. (Original) The monolithic column of claim 20, wherein the radical initiator is AIBN, $K_2S_2O_8$, ammonium persulfate, or benzoylperoxide.

23. (Currently Amended) A stationary phase for column chromatography using the polymer of ~~any one of claims 1 through 14~~ claim 1.